Dart Aerospace Ltd. Tuesday, 10/3/2006 2:49:47 PM Date: Kim Johnston Úser: **Process Sheet** : BRACKET ASSEMBLY **Drawing Name** Customer : CU-DAR001 Dart Helicopters Services Job Number : 28827 : 10280 **Estimate Number** : NIA : D3137043 Part Number P.O. Number : D3137 REV E S.O. No. : NIA **Drawing Number** : 10/3/2006 This Issue : N/A Project Number Prsht Rev. : NA : MACHINED PARTS Type **Drawing Revision** First Issue : 27370 Material **Previous Run** : 10/30/2006 Qty: 8 Um: **Due Date** Written By Checked & Approved By : Est Rev:A 04.02.18 New issue KJ/DS Comment **Additional Product** Job Number: **Description:** Seq. #: Machine Or Operation: M174B0500X02000 17-4 SS Bar 1.0 0.4875 f(s)/Unit Total: 3.9001 f(s) Comment: Qty.: Material: 17-4 SS Bar per AMS 5604/5643 (M17-4-B0.500x02.000) Identify for D3137-7 Batch: MJ9572 BAND SAW BAND SAW 2.0 Comment: BAND SAW Cut blanks: (.500" x 2.000") 5.570" long HAAS CNC VERTICAL MACHINING #1 3.0 Comment: HAAS CNC VERTICAL MACHINING #1 1-Machine D3137-7 as per Folio FA3308and Dwg D3137 Identify as D3137-7

2-Deburr

QC2

4.0

3-Scribe batch number

INSPECT PARTS AS THEY COME OFF MACHINE

Comment: INSPECT PARTS AS THEY COME OFF MACHINE

J.T 00/10/52

Each

Dart Aerospace Ltd

Du	oopaoo								
W/O:			V	VORK ORDER CHAN	GES				
DATE	STEP	PR	PROCEDURE CHANGE			Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
			s.					:	
		· · · · · · · · · · · · · · · · · · ·							
Part No		PAR #:	Fault Ca	tegory:	NCR: Ye	es No DO	QA:	Date: _	
					QA	: N/C Clos	ed:	Date: _	
NCR:			WORK OR	DER NON-CONFORM	IANCE (N	CR)			
DATE	STEP	Description of NC	NC Corrective Action Se			Verif	ication	Approval	Approval
DATE	SIEF	Section A	Initial Chief Eng	Action Description Chief Eng	Sig Da		ction C	Chief Eng	QC Inspector
				. · · ·					

NOTE: Date & initial all entries

Tuesday, 10/3/2006 2:49:47 PM Date: Kim Johnston User: **Process Sheet Drawing Name: BRACKET ASSEMBLY** Customer: CU-DAR001 Dart Helicopters Services Job Number: 28827 Part Number: D3137043 Job Number: **Description:** Seq. #: **Machine Or Operation:** SECOND CHECK QC8 МS Comment: SECOND CHECK D31373 Guide 6.0 8.0000 Each(s) 1.0000 Each(s)/Unit Total: Comment: Qty.: Pick: **Qty Part Number** Description Batch B28149 GUIDE 1 D3137-3 Washer 7.0 D31375 Comment: Qty.: 1.0000 Each(s)/Unit Total: 8.0000 Each(s) Pick: Qty Part Number Description Batch 1 D3137-5 Washer MS24694S101 8.0 Comment: Qty.: 1.0000 Each(s)/Unit Total: 8.0000 Each(s) Pick: Description Batch **Qty Part Number** Screw _M 169 1 MS24694-s101 SMALL & MEDIUM FAB RESOURCE 1 9.0 SMALL FAB 1 Comment: SMALL & MEDIUM FAB RESOURCE 1 Assemble D3137-043 as per Dwg D3137 INSPECT WORK TO CURRENT STEP QC5 10.0 Comment: INSPECT WORK TO CURRENT STEP PACKAGING 1 PACKAGING RESOURCE #1 11.0 Comment: PACKAGING RESOURCE #1 Identify and Stock Location:

Dart Aerospace Ltd

W/O:			WC	RK ORDER CHANGES	3				
DATE	STEP	PR	PROCEDURE CHANGE			Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No	:	PAR #:	Fault Cateç	jory: l	_	•			
	···- · · · · · ·						:	_ Date: _	
NCR:		,	WORK ORDE	ER NON-CONFORMAN	CE (NCR)			
D.47F	0750	Description of NC	Secription of NC Corrective Action Section			Verification	Approval	Approval	
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Sign & Section C Chief Eng		QC Inspector	
				,					

NOTE: Date & initial all entries

Date:

Tuesday, 10/3/2006 2:49:47 PM

Úser:

Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BRACKET ASSEMBLY

Job Number: 28827

Part Number: D3137043

Job Number:



Seq. #:

Machine Or Operation:

Description:

12.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



u 201026

Dart Aerospace Ltd

W/O:			WO	RK ORDER CHAN	GES					
DATE	STEP	PR	OCEDURE CHAN			Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
-										
									•	
								·		
Part No		PAR #:	Fault Categ	ory:	NC	R: Yes N	lo DQA :		_ Date:	
						QA: N/	C Closed:		_ Date: _	
NCR:			WORK ORDE	ER NON-CONFORM	MANCE	(NCR)				
DATE	STEP	Description of NC			ection B	Sign &	Verifica		Approval	Approval
	0121	Section A	Initial Chief Eng	Action Description Chief Eng		Date	Section	С	Chief Eng	QC Inspector
							ļ			
,										
									-	
			4						÷ ··	
							12.9%			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	28821
Description: Bracket	Part Number:	D3137-7
Inspection Dwg: D3137 Rev: E		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X	First Article		Prototype
---	---------------	--	-----------

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.435	+/-0.010	435	//			
0.615	+/-0.010	.625				
0.200	+/-0.010	. 205				
0.380	+/-0.010	.387				
0.262	+/-0.010	.271				
Ø0.500	+0.005/-0.000	.502				
0.79	+/-0.030	.790	/,			
2.79	+/-0.030	2.790				
Ø0.560	+0.005/-0.000	.562				
0.595	+/-0.010	.594	//			
0.950	+/-0.010	. 949		,		
0.605	+/-0.010	.605				
1.880	+/-0.010	1.875	J.			
2.48	+/-0.030	2.485	/	,		
4.975	+/-0.010	4.975	//		ن المن الم	
5.41	+/-0.030	5.410	/,		7:11:	
0.032	+/-0.010	.032	__\			
0.063	+/-0.010	.062	//			
R0.062	+/-0.010	.062				
0.162	+/-0.010	.160				
, s _k						

Measured by:	Audited by:	S	Prototype Approval:	N/A
Date: 06/10/24	Date:	06/10/24	Date:	N/A

Rev	Date	Change	Revised by	Approved
Α	03.11.12	New Issue P/O D3137-043	KJ/RF	
В	04.06.15	Changed & added dimensions	KJ/JLM L	
С	06.03.15	Dwg Rev update	KJ/JLM	



DE	SIGN DS	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
СН	ECKED	APPROVED	DRAWING NO. REV. E
	#	#F	D3137 SHEET 1 OF 5
DA	ſΕ		TITLE SCALE
05	5.11.23		BRACKET ASSEMBLY 1:
A		02.04.17	NEW ISSUE
E	3	03.01.16	ADD RIDGES; ADD MAT'L PROP.
С		03.08.15	ADD -043
		04.11.03	RE-DESIGN D3137-5; CHANGE DIMS
Ε		05.11.23	ADD -045

RELEASE 05.12.09

> MS24694-S101 SCREW D3137-5 WASHER D3137-3 GUIDE INSTALL ON SAME SIDE AS C'SINKS (OPPOSITE SIDE FROM RIDGES) D3137-1 BRACKET (-041 SHOWN) D3137-7 BRACKET (-043 SIMILAR)

> > D3137-9 BRACKET (-045 SIMILAR)

D3137-041 BRACKET ASSEMBLY (SHOWN) D3137-043 BRACKET ASSEMBLY (SIMILAR)

SHOP COPY RETURN TO **ENGINEERING** UNCONTROLLED COPY SUBJECT TO AMENDMENT WITHOUT NOTICE WORK ORDER

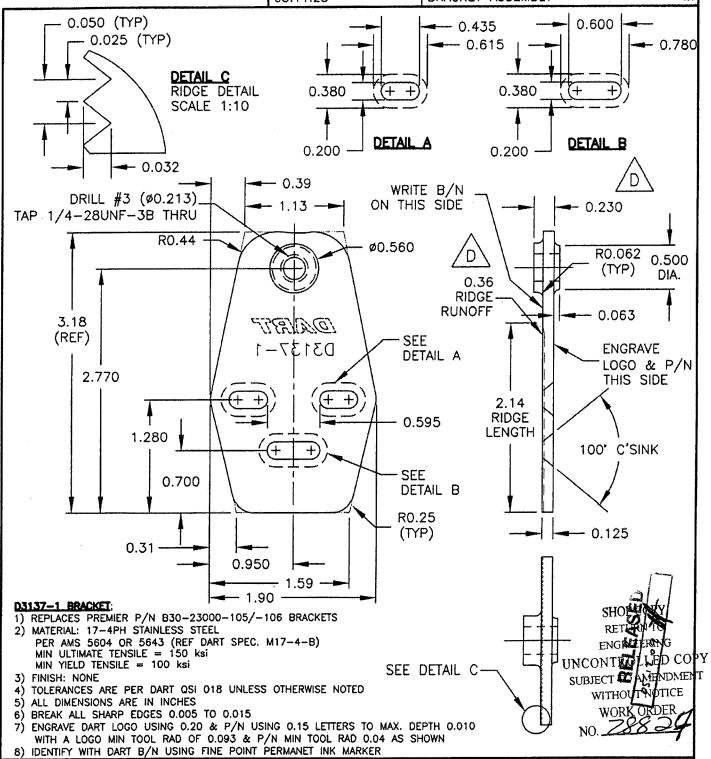
Copyright © 2002 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

OR



DESIGN DS	DRAWN BY	DART AERO HAWKESBURY, C	
CHECKED #//	APPROVED AN	DRAWING NO.	REV. E
- 	-#	D3137	SHEET 2 OF 5
DATE	<u></u>	TITLE	SCALE
05.11.23		BRACKET ASSEMBLY	1:1

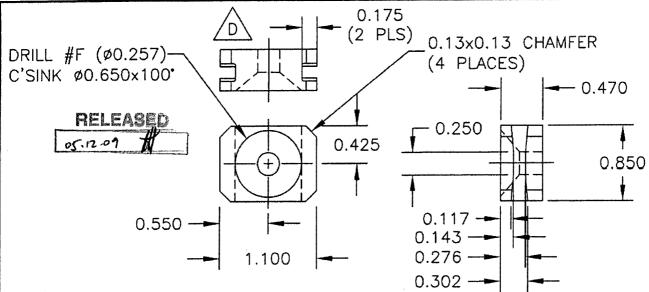


Copyright © 2002 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

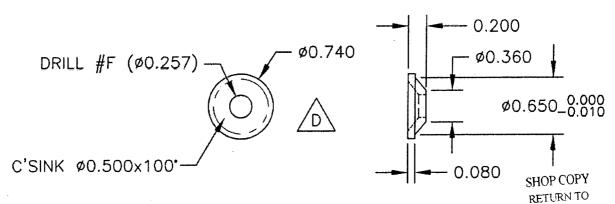


DESIGN DS	DRAWN BY	DART AEROSP HAWKESBURY, ONTARI	
CHECKED	APPROVED .	DRAWING NO.	REV. E
一十	#	D3137	SHEET 3 OF 5
DATE		TITLE	SCALE
05.11.23		BRACKET ASSEMBLY	1:1



D3137-3 GUIDE

- 1) REPLACES PREMIER P/N B30-23000-207
- 2) MATERIAL: DELRIN BAR (REF DART SPEC. M-DELRIN-B)
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL EDGES 0.005 TO 0.015



D3137-5 WASHER

- 2) MATERIAL: 6061-T6 (QQ-A-225/8 OR QQ-A-200/8) BAR (REF DART SPEC MEDELLED COPY 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4 1
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL EDGES 0.005 TO 0.015

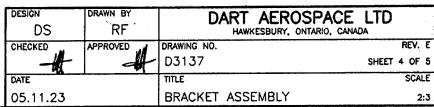
ENGINEERING

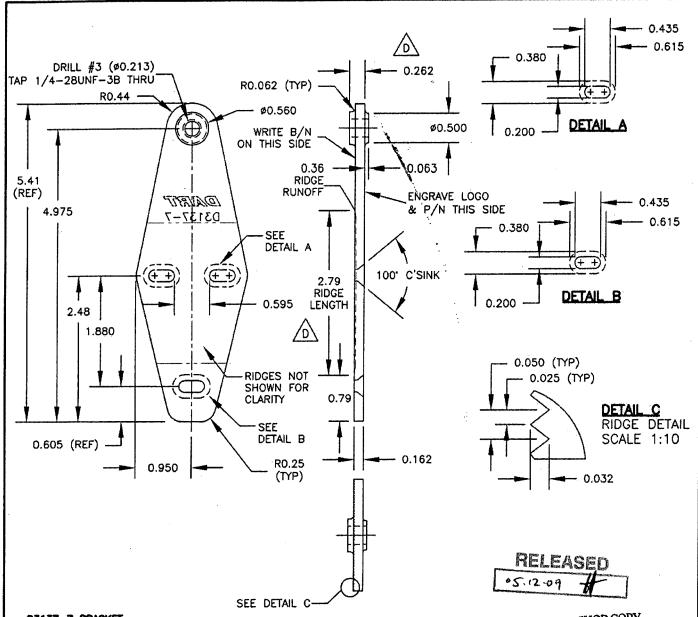
WORK ORDER

Copyright @ 2002 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.







D3137-7 BRACKET:

1) MATERIAL: 17-4PH STAINLESS STEEL PER AMS 5604 OR 5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE = 150 ksi
MIN YIELD TENSILE = 100 ksi

2) FINISH: NONE

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

4) ALL DIMENSIONS ARE IN INCHES

5) BREAK ALL SHARP EDGES 0.005 TO 0.015

ENGRAVE DART LOGO USING 0.20 & P/N USING 0.15 LETTERS TO MAX. DEPTH 0.010 WITH A LOGO MIN TOOL RAD OF 0.093 & P/N MIN TOOL RAD 0.04 AS SHOWN

7) IDENTIFY WITH DART B/N USING FINE POINT PERMANENT INK MARKER

SHOP COPY

RETURN TO

ENGINEERING

UNCONTROLLED COPY

SUBJECT TO AMENDMENT

WITHOUT NOTICE

WORK ORDER NO. ∠

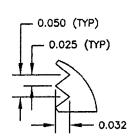
Copyright © 2002 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED.

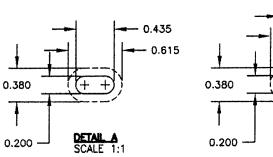
OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

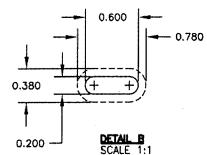


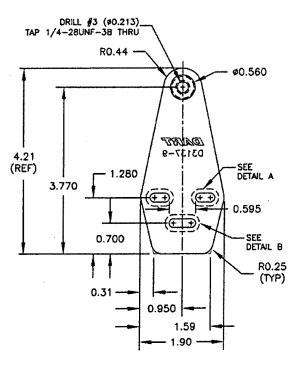
DESIGN DS	DRAWN BY RF	DART AEROS HAWKESBURY, ONT	
CHECKED ,,,	APPROVED	DRAWING NO.	REV. E
	一村	D3137	SHEET 5 OF 5
DATE	***************************************	TITLE	SCALE
05.11.23		BRACKET ASSEMBLY	1:2



DETAIL C RIDGE DETAIL SCALE 1:20







0.262 0.500 R0.062 DIA. (TYP) WRITE B/N ON THIS SIDE 0.063 0.36 RIDGE **ENGRAVE** LOGO & P/N THIS SIDE RUNOFF 2.14 RIDGE LENGTH 100° C'SINK 0.162



D3137-9 BRACKET:

1) REPLACES PREMIER P/N B30-23000-105/-106 BRACKETS

2) MATERIAL: 17-4PH STAINLESS STEEL PER AMS 5604 OR 5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE = 150 ksi
MIN YIELD TENSILE = 100 ksi

3) FINISH: NONE

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

ALL DIMENSIONS ARE IN INCHES

BREAK ALL SHARP EDGES 0.005 TO 0.015

7) ENGRAVE DART LOGO USING 0.20 & P/N USING 0.15 LETTERS TO MAX. DEPTH 0.010 WITH A LOGO MIN TOOL RAD OF 0.093 & P/N MIN TOOL RAD 0.04 AS SHOWN 8) IDENTIFY WITH DART B/N USING FINE POINT PERMANENT INK MARKER

ERING UNCONTROLLED COPY

SUBJECT TO AMENDMENT

WITHOUT NOTICE

NO.

Copyright @ 2002 by DART AEROSPACE LTD

SEE DETAIL C-

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.